

20080608.ba v04_n178.bam.20080608

>From ???@??? Sun Jun 8 13:15:08 2008 -0500
Date: Sun, 8 Jun 2008 12:54:06 CST
From: Old Tube Radios <boatanchors@theporch.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: BOATANCHORS digest 4178
Message-Id: <20080608185353.CE15F10B1B9@srvr1.theporch.com>

BOATANCHORS Digest 4178

Topics covered in this issue include:

- 1) Walsh, ect
by scb@hiwaay.net
- 2) Question - Collins 32V-3 Transmitter
by Mike Hardie <mike46@shaw.ca>
- 3) Re: Question - Collins 32V-3 Transmitter
by "k4pf@juno.com" <k4pf@juno.com>
- 4) ATC, ART-13 Order Numbers and Makers
by "David Stinson" <arc5@ix.netcom.com>
- 5) SX-28 Rubber Feet
by RICHARD SOLOMON <w1ksq@q.com>
- 6) Double Sided Circuit Board Soldering
by Mike Hardie <mike46@shaw.ca>
- 7) RE: Double Sided Circuit Board Soldering
by 4CX250B <4cx250b@muohio.edu>
- 8) Re: Double Sided Circuit Board Soldering
by Mike Hardie <mike46@shaw.ca>
- 9) Re: Double Sided Circuit Board Soldering
by WA5CAB@cs.com
- 10) Re: Double Sided Circuit Board Soldering
by "Arden Allen" <gumbear@pacbell.net>
- 11) Cap Value
by Jerry Proc <jerry7proc@yahoo.com>
- 12) Re: Cap Value
by "Morris Odell" <vilgotch@bigpond.net.au>
- 13) FT-101 idling plate current (none)
by "Jack Colson" <jcolson7@tampabay.rr.com>
- 14) SX-110: worth restoring or not?
by Charles Morris <charlesmorris@hughes.net>
- 15) Re: SX-110: worth restoring or not?
by "Robert Roehrig (K9EUI)" <broehrig@aurora.edu>
- 16) Re: SX-110: worth restoring or not?
by Robert Nickels <w9ran@oneradio.net>
- 17) Re: FT-101 idling plate current (none)
by "k4pf@juno.com" <k4pf@juno.com>
- 18) Re: Cap Value

by "Arden Allen" <gumbear@pacbell.net>
19) Re: SX-110: worth restoring or not?
by "Arden Allen" <gumbear@pacbell.net>
20) Synchronous Det. Re: SX-110: worth restoring or not?
by "RJ Mattson" <rjmattson@hvi.net>
21) Re: Cap Value
by Jerry Proc <jerry7proc@yahoo.com>

To: Old Tube Radios <boatanchors@theporch.com>
Subject: Walsh, ect
Message-ID: <1212462523.4844b5bb8e693@webmail.hiwaay.net>
Date: Mon, 02 Jun 2008 22:08:43 -0500 (CDT)
From: scb@hiwaay.net
MIME-Version: 1.0
Content-Type: text/plain; charset=ISO-8859-1
Content-Transfer-Encoding: 8bit

Marty writes;

"Never heard of the Walsh by OHM. But know of Lincoln Walsh."

His full-range omnidirectional transmission line driver was quite a concept.
Not so easy to realize tho', he didn't live to see it produced.

<<http://www.soundadviceblog.com/?p=436> >

<http://reviews.ebay.com/Ohm-Walsh-F_W0QQugidZ100000000004082484 >

"He designed the direct-coupled 845 amps used for stereo in fountain
in front of RCA pavilion @ '39 world's fair. Kind of vacuum-
tube darlingtonts"

Interesting concept. Wasn't there a direct-coupled single-envelope tube during
that period?

Anyone remember the Counterpoint SA-4 fully-DC-coupled VT amp using 8 6LF6s in
totem-pole per channel, 2 more as screen regulators. Very complex PS.

"Also was a principle at Brook Audio post ww2."

Paul Kliptch once told me the Brook amp was his fave for driving the K-horn.

"His ckt was in Mac MC-30 (a-116B) & all later jobbies. (tag
2day sounds kenwoodish)"

The Mac tube amp was something else. Very intertesting output coupling.

"Wish I cud find that 1939 IRE on the fair's stereo. It noted Bozak

speakers weighing in @ 100s of lbs were there"

If you do, pass it on.

mr aka 'rm"

Fascinating stuff 'M', thnx!
S.B.

Date: Wed, 04 Jun 2008 08:27:17 -0700
From: Mike Hardie <mike46@shaw.ca>
Subject: Question - Collins 32V-3 Transmitter
To: Old Tube Radios <boatanchors@theporch.com>
Message-id: <000501c8c657\$79e20890\$6401a8c0@user25441bd096>
MIME-version: 1.0
Content-type: text/plain; format=flowed; charset=iso-8859-1; reply-type=original
Content-transfer-encoding: 7bit

When transmitting on a recently acquired 32V-3 transmitter the grid current seems on the high side. The maximum limit listed in the manual and 4D32 specs is 15 ma, and the transmitter runs at about 12.5 ma. I'd have expected something around half the maximum value.

The 6.2 ohm grid current shunt resistor has been replaced, likely with a metal film component, it measures just about dead on 6.2 ohms it's possible the resistor has some inductive properties.

Can someone with 32V-3 experience tell me if 12.5 ma is normal, and if it isn't where to look for the likely culprit?

73,

Mike VE7MMH

Mime-Version: 1.0
From: "k4pf@juno.com" <k4pf@juno.com>
Date: Wed, 4 Jun 2008 18:50:44 GMT
To: Old Tube Radios <boatanchors@theporch.com>
Cc: boatanchors@theporch.com
Subject: Re: Question - Collins 32V-3 Transmitter
Message-Id: <20080604.145044.20941.0@webmail10.vgs.unttd.com>
Content-Transfer-Encoding: quoted-printable
Content-Disposition: inline
Content-Type: text/plain; charset=ISO-8859-1

-- Mike Hardie <mike46@shaw.ca> wrote:
When transmitting on a recently acquired 32V-3 transmitter the grid current =

seems on the high side. The maximum limit listed in the manual and 4D32=
=

specs is 15 ma, and the transmitter runs at about 12.5 ma. I'd have =

expected something around half the maximum value.
<snip>

Hi,

I'm not a 32V3 guy, but the 32V2 manual (section 3), on line at CollinsRadio.org shows that "normal" final grid current is between 5 and 15 mA. The military acceptance test for the 4D32 on line at www.tpub.com includes that "power oscillator" =

and vibration tests were performed at 10mA grid current.

I would check the screen voltage of the rf driver tube (7C5). It should be between about 165V and 180V, depending on band, according to the 32V-1 manual on line. If this voltage is high, due to the screen dropping resistor having lowered in value, =

you will have more drive on the final.

73,
Ed Knobloch

Message-ID: <5C258E9727BE49DD92D55CB6F9F83D91@boudreaux>
From: "David Stinson" <arc5@ix.netcom.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: ATC, ART-13 Order Numbers and Makers
Date: Wed, 4 Jun 2008 23:13:24 -0500
MIME-Version: 1.0
Content-Type: text/plain;
 format=flowed;
 charset="iso-8859-1";
 reply-type=original
Content-Transfer-Encoding: 7bit

Need a small favor, when you can:
Might you please reply off-list with the order number,

serial number and maker from the nomen plate
on your ART-13 transmitter(s)?
Thanks!

Example: 7295 CWS 596-DAY-44

Message-ID: <BAY130-W489BA96F2436DDD8570252E0B70@phx.gbl>
Content-Type: multipart/alternative;
boundary="_a4d4c23a-a732-456d-b4ed-11413ebc38e2_"
From: RICHARD SOLOMON <w1ksz@q.com>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: SX-28 Rubber Feet
Date: Fri, 6 Jun 2008 04:02:21 +0000
MIME-Version: 1.0

--_a4d4c23a-a732-456d-b4ed-11413ebc38e2_
Content-Type: text/plain; charset="iso-8859-1"
Content-Transfer-Encoding: quoted-printable

The SX-28 I am restoring is missing one of the cabinet feet. Are any like t=
hem
available or should I replace all 4 ?
=20
Thanks, Dick, W1KSZ=

--_a4d4c23a-a732-456d-b4ed-11413ebc38e2_
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

* * * * *
* ---REMAINDER OF MESSAGE TRUNCATED--- *
* This post contains a forbidden message format *
* (such as an attached file, a v-card, HTML formatting) *
* Mail Lists at theporch.com only accept PLAIN TEXT *
* If your postings display this message your mail program *
* is not set to send PLAIN TEXT ONLY and needs adjusting *
* * * * *

--_a4d4c23a-a732-456d-b4ed-11413ebc38e2_--

Date: Fri, 06 Jun 2008 10:19:29 -0700
From: Mike Hardie <mike46@shaw.ca>
Subject: Double Sided Circuit Board Soldering
To: Old Tube Radios <boatanchors@theporch.com>

Message-id: <001201c8c7f9\$7a723bb0\$6401a8c0@user25441bd096>

MIME-version: 1.0

Content-type: text/plain; format=flowed; charset=iso-8859-1; reply-type=original

Content-transfer-encoding: 7bit

I'm replacing a diode on an HP double sided circuit board. Does anyone know the correct de-soldering/soldering technique? Is there a website with information?

Alternately does anyone have a parts unit HP 8443B tracking generator?

73,

Mike VE7MMH

From: 4CX250B <4cx250b@muohio.edu>

To: Old Tube Radios <boatanchors@theporch.com>

CC: "boatanchors@theporch.com" <boatanchors@theporch.com>

Date: Fri, 6 Jun 2008 14:05:07 -0400

Subject: RE: Double Sided Circuit Board Soldering

Message-ID: <8F9ED8440C4E4940AAEF6F870A20CB973063D4867D@FACCMS2.it.muohio.edu>

Content-Language: en-US

Content-Type: text/plain; charset="us-ascii"

Content-Transfer-Encoding: quoted-printable

MIME-Version: 1.0

Not a difficult job, Mike. clip one diode lead as close as possible to the diode (NOT the PCB). Heat the connection from the underside and use the body of the diode to pull the lead out. Then heat the other connection and use tweezers to pull out the clipped off diode lead. Don't overheat the connection, and use a fine tipped soldering iron.

Once the diode is out, use a solder-sucker or solder wick to clean the solder out of the hole. You may have to use a bit of solder on each hole to get the solder wick started. Once the holes are unblocked and free of solder, then reinstall the new diode. When you're done soldering it, clean the contacts with a Q-tip and some isopropyl alcohol.

73,

Jim W8ZR

From: owner-boatanchors@theporch.com [owner-boatanchors@theporch.com] On Behalf Of Mike Hardie [mike46@shaw.ca]

Sent: Friday, June 06, 2008 11:19 AM

To: Old Tube Radios

Subject: Double Sided Circuit Board Soldering

I'm replacing a diode on an HP double sided circuit board. Does anyone know the correct de-soldering/soldering technique? Is there a website with information?

Alternately does anyone have a parts unit HP 8443B tracking generator?

73,

Mike VE7MMH

Date: Fri, 06 Jun 2008 15:52:16 -0700
From: Mike Hardie <mike46@shaw.ca>
Subject: Re: Double Sided Circuit Board Soldering
To: Old Tube Radios <boatanchors@theporch.com>
Cc: boatanchors@theporch.com
Message-id: <003101c8c827\$f80f4850\$6401a8c0@user25441bd096>
MIME-version: 1.0
Content-type: text/plain; format=flowed; charset=iso-8859-1; reply-type=original
Content-transfer-encoding: 7bit

Jim, Russ and group,

Done - thanks. Also I used the 99% isopropyl for cleaning.

Mike VE7MMH

From: WA5CAB@cs.com
Message-ID: <ccd.363b7f83.357b1f26@cs.com>
Date: Fri, 6 Jun 2008 19:15:50 EDT
Subject: Re: Double Sided Circuit Board Soldering
To: Old Tube Radios <boatanchors@theporch.com>
MIME-Version: 1.0
Content-Type: multipart/alternative;
boundary="part1_ccd.363b7f83.357b1f26_boundary"

--part1_ccd.363b7f83.357b1f26_boundary
Content-Type: text/plain; charset="US-ASCII"
Content-Transfer-Encoding: 7bit

I'll add one comment to the how-to previously posted. Sometimes (and especially if the board was previously repaired) you'll find the component lead bent over on the solder side of the board before it was soldered. If you try

to pull that back through the hole, you will probably damage the board. There are two approaches, depending upon what equipment you have. Or personal preference.

If you have good de-soldering equipment, desolder the solder side and clip off the bent over lead flush with the land. Then re-heat the joint and pull the lead out from the component side. If you don't, clip the lead on the component side about 1/8" from the board (but in any case at a point where the wire is still straight coming out of the hole). Heat the joint and push the clipped off lead through from the component side. Grab the bent over portion that's now clear of the board and take the lead out to the solder side.

Finally in either case, clean out the plated-through hole.

Robert Downs - Houston
<<http://www.wa5cab.com>> (Web Store)
MVPA 9480
<wa5cab@cs.com> (Primary email)
<wa5cab@comcast.net> (Backup email)

--part1_ccd.363b7f83.357b1f26_boundary
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: 7bit

```
* * * * *
*      ---REMAINDER OF MESSAGE TRUNCATED---      *
*      This post contains a forbidden message format      *
* (such as an attached file, a v-card, HTML formatting) *
*      Mail Lists at theporch.com only accept PLAIN TEXT      *
* If your postings display this message your mail program *
* is not set to send PLAIN TEXT ONLY and needs adjusting *
* * * * *
```

--part1_ccd.363b7f83.357b1f26_boundary--

Message-ID: <001701c8c898\$bc2b07e0\$1c9e480c@KB6NAX>
From: "Arden Allen" <gumbear@pacbell.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Double Sided Circuit Board Soldering
Date: Sat, 7 Jun 2008 05:19:21 -0700
MIME-Version: 1.0
Content-Type: text/plain;
 charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Some more bits about working on double sided boards: Circuit boards made before approximately 1980 suffered from failure of the adhesive that bonds copper traces to the glass-epoxy board when heated for too long. Boards got progressively more durable but none are immune to damage from protracted or repeated heating. Because a plated through hole does a better job of losing heat to the board it takes more heat to solder/desolder component leads than in a single sided board. Circuit boards are more likely to be damaged by INSUFFICIENT HEAT than more heat than necessary to do the job. The longer heat is applied the greater the degradation of the adhesive. Therefore one must first size up a board's heat requirement for quick solder melt through to the other side of the board for either lead withdrawal or solder removal. If desoldering braid is used the heat requirement is even greater. What all this means is what is most important is the HEAT CAPACITY of the soldering (or desoldering) iron, i.e., the SIZE of the soldering tip. The most common mistake is using too small of a tip, finding the solder is not melting sufficiently, and then cranking up the heat, all the while the board is being damaged. As a rule of thumb, USE THE LARGEST SIZE TIP APPROPRIATE FOR DOING THE JOB. Of course, heating the board for too long, regardless of tip size, should be avoided. This I know from having reworked literally thousands of circuit boards of all types, and vintages, beginning with my Heatkit V7A's board which I ruined and had to order a replacement.

Arden Allen
KB6NAX

Date: Sat, 7 Jun 2008 19:17:55 -0400 (EDT)
From: Jerry Proc <jerry7proc@yahoo.com>
Subject: Cap Value
To: Old Tube Radios <boatanchors@theporch.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=iso-8859-1
Content-Transfer-Encoding: 8bit
Message-ID: <534191.19338.qm@web90604.mail.mud.yahoo.com>

Hello Everyone,

I am trying to repair my microwave oven. The fault is very evident. A foil capacitor has its end blown away.

The markings on the cap are:
WF 684J 400V BI"

The voltage rating is obvious. Is there any format for decoding the 684J value?

--

Regards,
Jerry Proc
E-mail: jerry7proc@yahoo.com

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Yahoo! Canada Messenger for the Web BETA at <http://ca.messenger.yahoo.com/webmessengerpromo.php>

Message-ID: <000701c8c8f7\$c21ce510\$ad00a8c0@Morris1>
From: "Morris Odell" <vilgotch@bigpond.net.au>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: Cap Value
Date: Sun, 8 Jun 2008 09:39:41 +1000
MIME-Version: 1.0
Content-Type: text/plain;
 format=flowed;
 charset="iso-8859-1";
 reply-type=original
Content-Transfer-Encoding: 7bit

That's like a resistor colour code, in pf.

684 = 680000 pf or 0.68 uF

73, Morris

----- Original Message -----

From: "Jerry Proc" <jerry7proc@yahoo.com>
To: "Old Tube Radios" <boatanchors@theporch.com>
Sent: Sunday, June 08, 2008 9:17 AM
Subject: Cap Value

> Hello Everyone,
>
> I am trying to repair my microwave oven. The fault is
> very evident. A foil capacitor has its end blown away.
>
> The markings on the cap are:
> WF 684J 400V BI"
>
> The voltage rating is obvious. Is there any format for
> decoding the 684J value?
>

>
>
> --
> Regards,
> Jerry Proc
> E-mail: jerry7proc@yahoo.com
>
>
>

> Connect with friends from any web browser - no download required. Try the
> new Yahoo! Canada Messenger for the Web BETA at
> <http://ca.messenger.yahoo.com/webmessengerpromo.php>
>
>
>
> --
> No virus found in this incoming message.
> Checked by AVG.
> Version: 7.5.524 / Virus Database: 270.0.0/1489 - Release Date: 6/7/2008
> 11:17 AM
>
>

Message-ID: <34103EB39C934CA38D457343BE0913CD@jack7gfusd5gxr>

From: "Jack Colson" <jcolson7@tampabay.rr.com>

To: Old Tube Radios <boatanchors@theporch.com>

Subject: FT-101 idling plate current (none)

Date: Sat, 7 Jun 2008 20:12:02 -0400

MIME-Version: 1.0

Content-Type: text/plain;

format=flowed;

charset="Windows-1252";

reply-type=original

Content-Transfer-Encoding: 7bit

Hello,

I have been working on a Yaesu FT-101EX that was working then the coupling capacitor from the 12BY7 plate to the final grid shorted and put 300v on the grids and bias board. Changed the cap with one from Fox Tango and repaired the bias board. Then I had no idling plate current, with full drive 100 ma of plate current and 10-15 w out.

OK, purchased new tubes - still no idling plate current but now 100w out even on 29 MHz. Final does not really want to neutralize even with a new 10pf cap as recommended.

Bias at -55v measued at tube base and monitored at a decoupling resistor

when looking for idling current. Screen voltage 150 v. Plate voltage 600.

Removed the by-pass capacitors, meter shunt and twisted wire leading to internal meter circuit. Placed a 500 ma meter from the cathodes to ground. Same readings - no idling current.

My last thought is to lower the bias using an external supply starting at -55 v and reducing it towards 0 v. Specifications for the rig state -55v operating bias.

Tubes really should draw current when volatage are applied. Or, at least that was my belief.
Any suggestions?

73 and thank you,
Jack, W3TMZ

From: Charles Morris <charlesmorris@hughes.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: SX-110: worth restoring or not?
Date: Sat, 07 Jun 2008 21:06:10 -0400
Message-ID: <b1cm4455028arnbdpes2mhiocimrmt3d3m@4ax.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=us-ascii
Content-Transfer-Encoding: quoted-printable

I went to the very small hamfest at Hermon (Bangor area), Maine today and a "restorable" Hallicrafters SX-110 receiver followed me home. It was only \$5. A couple of moderate rust patches on the top of the chassis. Cabinet needs a repaint. Original Black Beauties still in place and there are no tubes.

After a bit of online searching I discovered that 6SC7's are coveted by guitar tube amp enthusiasts. Between Fair Radio and Antique Elect. Supply a tube set would run me about \$40 of which \$11 is the 6SC7!

So - any thoughts as to whether this rx is "worth the trouble" (and expense) to get working again? Is it a drifty POS that will just annoy me after I put \$50 and lots of elbow grease into it?

-Charles

ps It's been quite a while since I modified tube circuits like this... is there any reason I can't use two 1N34-type diodes instead of the 6H6 detector/noise limiter?

Date: Sat, 7 Jun 2008 20:22:51 -0500 (CDT)
From: "Robert Roehrig (K9EUI)" <broehrig@aurora.edu>
To: Old Tube Radios <boatanchors@theporch.com>
Cc: Old Tube Radios <boatanchors@theporch.com>
Message-ID: <1431420304.420641212888171434.JavaMail.root@mars.aurora.edu>
Subject: Re: SX-110: worth restoring or not?
MIME-Version: 1.0
Content-Type: text/plain; charset=utf-8
Content-Transfer-Encoding: 7bit

----- Charles Morris <charlesmorris@hughes.net> wrote:

> I went to the very small hamfest at Hermon (Bangor area), Maine today
> and a "restorable" Hallicrafters SX-110 receiver followed me home.
> It was only \$5.

> So - any thoughts as to whether this rx is "worth the trouble" (and
> expense) to get working again? Is it a driftly POS that will just annoy
> me after I put \$50 and lots of elbow grease into it?

> ps It's been quite a while since I modified tube circuits like this...
> is there any reason I can't use two 1N34-type diodes instead of the
> 6H6 detector/noise limiter?

Charles - as a early general class ham, I used a SX-110 with good results. This was in the early days of SSB popularity. I did use a Central Electronics slicer with it but my recall is that it was pretty stable and worked well for me. I'd say yes, it's worth restoring, but take your time and look for bargain parts. I probably have some 6SC7's here and I know I have a ton of 6H6's. Give me a few days to look for them and I'll gladly send to you for the shipping cost.

--

Bob Roehrig
630-844-4898
A.U. Telecom dept.
K9EUI WD2XSH/19 W9ZGP

Message-ID: <484B4433.9040509@oneradio.net>
Date: Sat, 07 Jun 2008 21:30:11 -0500
From: Robert Nickels <w9ran@oneradio.net>
MIME-Version: 1.0
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: SX-110: worth restoring or not?

Content-Type: text/plain; charset=UTF-8; format=flowed
Content-Transfer-Encoding: 7bit

Robert Roehrig (K9EUI) wrote:

> as a early general class ham, I used a SX-110 with good results.
I'll second that, Charles, only my experience starting with the SX-110
was as an SWL before, and during my novice and early general years. You
probably know it's basically a re-packaged version of the SX-99, and you
can trace its lineage back thru several decades of Hallicrafters
"two-dial" receivers. I'd bet more hams got their start with that
series of receivers than any other!

It's still a fun SWL and BC receiver, nice audio and good bandwidth for
AM. And it's stable enough to copy sideband, once you develop the knack
of running the RF gain back and chasing the inevitable drift. Is it a
rival to real communications receivers? No - but it's very usable on AM
today and with a bit of practice, on the other modes as well.

I recall the only problem I had with mine was when it came up dead one
day. My 15 year old troubleshooting skills weren't great, but a trip to
the TV shop produced a new 6H6 and I was soon back in business. I
think you'll be pleased with it after you restore it - I guess that's
why I still enjoy mine, 40 years later...

73, Bob W9RAN

Mime-Version: 1.0
From: "k4pf@juno.com" <k4pf@juno.com>
Date: Sun, 8 Jun 2008 03:51:20 GMT
To: Old Tube Radios <boatanchors@theporch.com>
Cc: boatanchors@theporch.com
Subject: Re: FT-101 idling plate current (none)
Message-Id: <20080607.235120.13782.0@webmail07.vgs.unttd.com>
Content-Transfer-Encoding: quoted-printable
Content-Disposition: inline
Content-Type: text/plain; charset=ISO-8859-1

-- "Jack Colson" <jcolson7@tampabay.rr.com> wrote:

I have been working on a Yaesu FT-101EX that was working then the =

coupling capacitor from the 12BY7 plate to the final grid shorted and =

put 300v on the grids and bias board. <snip>

Removed the by-pass capacitors, meter shunt and twisted wire leading to =

=

internal meter circuit. Placed a 500 ma meter from the cathodes to =
ground. Same readings - no idling current. <snip>

Hi,

I'd try that 500mA meter in the plate circuit, before
the plate rf choke, in case there is a leakage
path from cathode pin to ground (damaged socket?).

Vary the bias to achieve the desired
resting plate current. Sweep tubes (or 6146's) vary =

in characteristics too much to ensure the desired resting current
by setting the bias at a "target" amount. After setting the bias
for the correct resting current, unplug one of the finals
and see if the resting current is now one-half of what it was,
in order to check for balanced final tubes.

73,

Ed Knobloch

Message-ID: <006501c8c929\$50a40df0\$889d480c@KB6NAX>

From: "Arden Allen" <gumbear@pacbell.net>

To: Old Tube Radios <boatanchors@theporch.com>

Subject: Re: Cap Value

Date: Sat, 7 Jun 2008 21:58:23 -0700

MIME-Version: 1.0

Content-Type: text/plain;

charset="iso-8859-1"

Content-Transfer-Encoding: 7bit

> The markings on the cap are:

> WF 684J 400V BI

684 = 68 x 10 to the 4th power, i.e., 68e+4 picofarads

680,000pF, 680nF or 0.68uF, +/- 5% tolerance

(J = 5%, K = 10%)

Arden Allen

KB6NAX

Message-ID: <006601c8c929\$51b70490\$889d480c@KB6NAX>
From: "Arden Allen" <gumbear@pacbell.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Re: SX-110: worth restoring or not?
Date: Sat, 7 Jun 2008 22:30:09 -0700
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

So - any thoughts as to whether this [SX-110] rx is "worth the trouble"

Mine sure was. Gone is the 6H6, added was a 6SA7 and 6SL7 product detector. With the xtal filter SSB and CW are decent for a few frills receiver. The AM detector is now a forward biased 1N5711 hot carrier diode. The NL was tossed overboard and it could use an IF noise limiter circuit. I'd also like to add a synchronizer so I can enjoy synchronous AM reception. Basic receivers are great project radios, they have little value in original condition and there are plenty of them to hack up and learn a thing or two on. Do nice work and the next owner will thank you.

Job #1 is to replace the ugly beauties.

Arden Allen
KB6NAX

Message-ID: <021401c8c97c\$02d96b30\$f8c164d0@Compaq2200>
From: "RJ Mattson" <rjmattson@hvi.net>
To: Old Tube Radios <boatanchors@theporch.com>
Subject: Synchronous Det. Re: SX-110: worth restoring or not?
Date: Sun, 8 Jun 2008 10:35:36 -0400
MIME-Version: 1.0
Content-Type: text/plain;
charset="iso-8859-1"
Content-Transfer-Encoding: 7bit

Can a synchronous AM detector be replicated easily with tubes?
Sure would like to find a nice construction article.

bob...w2ami x wn2ami 1962

----- Original Message -----
From: "Arden Allen" <gumbear@pacbell.net>
To: "Old Tube Radios" <boatanchors@theporch.com>
Subject: Re: SX-110: worth restoring or not?

So - any thoughts as to whether this [SX-110] rx is "worth the trouble"

.....I'd also like to add a synchronizer so I can enjoy synchronous AM reception.....

Arden Allen
KB6NAX

Date: Sun, 8 Jun 2008 14:53:39 -0400 (EDT)
From: Jerry Proc <jerry7proc@yahoo.com>
Subject: Re: Cap Value
To: Old Tube Radios <boatanchors@theporch.com>
MIME-Version: 1.0
Content-Type: text/plain; charset=iso-8859-1
Content-Transfer-Encoding: 8bit
Message-ID: <120604.89200.qm@web90602.mail.mud.yahoo.com>

Thank you to everyone who replied.
A cap of the right value was located in my junk box
and said microwave oven is now working.

--- Arden Allen <gumbear@pacbell.net> wrote:

> > The markings on the cap are:
> > WF 684J 400V BI
>
> 684 = 68 x 10 to the 4th power, i.e., 68e+4
> picofarads
>
> 680,000pF, 680nF or 0.68uF, +/- 5% tolerance
>
> (J = 5%, K = 10%)
>
> Arden Allen
> KB6NAX
>
>

--
Regards,
Jerry Proc
E-mail: jerry7proc@yahoo.com

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End of BOATANCHORS Digest 4178
